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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/747,257

12/22/2000

Terry D. Little

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07/30/2004

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EXAMINER

TSE, YOUNG TOI

ART UNIT

PAPER NUMBER

2637

6

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,257

Applicant(s)

LITTLE ET AL.

Examiner

YOUNG T. TSE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4.5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because the arrow flow shown in Figure 3 between block elements 116 and 120a should flow in one direction only. In Figure 6, Applicant is request to start either a capital letter or a small letter for the words "yes" and "no", further, the negative statement "no" is not shown in the output of block element 202 and the positive statement is not show in the output of clock 216. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered

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and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: on page 1, lines 13-19, Applicants are request to update the co-pending application serial numbers including the update of the US patent numbers; on page 19, line 2 and line 5, "212" and "so" should be – 202 – and – no --; Applicants fail to describe the block elements or the operation of the prior art Figures 1-2 and Figure 5 of the present invention in order to enable one of ordinary skill in the art to understand different between the present and the prior art; for the formality of the application under the present office practice, applicant(s) is required to replace "Claims" with "I or We Claim", "The Invention Claimed Is" (or the equivalent) before the Claims part of the specification of the instant application. See MPEP 608.01(m). Appropriate correction is required.

Claim Objections

4. Claims 1-11, 16, 18 and 20 are objected to because of the following informalities: in claim 1, lines 6 and 7, "said edge" should be – said first edge – and line 10, "a in value indicating a position" should be -- a first value indicating the position --; wherein claim 2-9 and 11 are directly or indirectly depended upon claim 1; in claim 10, line 3, "a phase offset magnitude" should be – phase offset magnitudes --; in claim 16, line 4, "said zone" should be – said predetermined zone --; in claim 18, line 2, the word "further" should be deleted; and in claim 20, line 3, "one or" and "system clock" should be – one of – and – a system clock --, respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants fails to describe the block elements or the operation of the prior art Figures 1-2 and Figure 5 of the present invention in order to enable one of ordinary skill

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in the art to understand different between the present and the prior art which may apply to the present invention of claims 1-20.

Claim 12 recites a step of (A) "upon power-up, performing ...", however, the specification seems never describe the operation of the synchronization system during power up or down.

Claim 13 recites an apparatus comprising a detector is consider as a single means. A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor. See MPEP 2164.08(a).

Claim 18 recites the detector comprises a comparator configured to compare a third value to a predetermined value, however, the specification fails to mention which block element(s) of Figure 4 is a comparator.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 7 and 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites step (E) further comprising: incrementing or decrementing.

However, it is unclear what to do with the incrementing or decrementing.

In claim 16 (lines 3-4), claim 17 (lines 3 and 4), claim 18 (lines 3 and 4) and claim 19 (line 3), the phrases "said value", "said third value", "said predetermined value" and "said second value" all lack antecedent basis since it is unclear the first, second, or third value.

In claim 18, line 3 and claim 19, line 3, claim 18 recites "said third value" but claim 19 which depends upon claim 18 recites "a third value", Applicants are requested to clarify the difference.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Black et al..

Black et al. (US patent No. 5,757,858) discloses a dual-mode digital communication system in Figure 1 for communicating an information signal during operation in frequency modulated (FM) and multiple-access modes.

Figure 9B provides a table summarizing the operation of an NRZ logic circuit included within the NRZ decoder.

With respect to claims 12 and 13, as indicated by Figure 9B, the DC offset correction loop is capable of operation in both tracking (low bandwidth) mode and acquisition mode. Operation in the acquisition mode is characterized by shorter loop time constants, which allows for rapid initial convergence of the offset correction. The relatively short loop time constants utilized in acquisition mode increase the loop bandwidth relative to the tracking mode bandwidth, allowing larger offset errors to exist during acquisition mode than an tracking mode. Conversely, the longer loop time constants, and hence narrower loop bandwidth are used during tracking mode in order to minimize steady state offset error (column 11, lines 15-29).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References Williams et al., White, Bowen et al., and Mukherjee et al. are all related to a timing or clock recovery circuit for synchronizing a clock signal to a data signal.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Young Tse** whose telephone number is **(703) 305-4736**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jay Patel**, can be reached at **(703) 308-7728**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

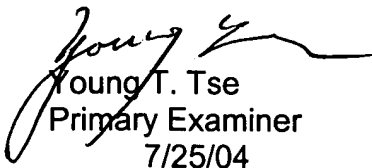
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


Young T. Tse
Primary Examiner
7/25/04